

REMARKS

Upon entry of this amendment, claims 1 and 8 are pending in this application. Claims 2-7 have been cancelled without prejudice or disclaimer of the subject matter therein. Claims 1 and 8 have been amended. No new matter has been added.

On pages 2-4 of the Office Action, the Examiner set forth a restriction requirement, and withdrew claims 5-7 from consideration as being directed to a process independent and distinct from the originally claimed apparatus. Accordingly, claims 5-7 have been cancelled from this application.

On pages 4-7 of the Office Action, the Examiner rejected original claims 1-4 and 8 under 35 U.S.C. § 103(a) as being unpatentable over Patel et al. (U.S. 6,942,811; hereinafter “Patel”) in view of Ohmi et al. (U.S. 6,217,633; hereinafter “Ohmi”). This rejection is respectfully traversed and, in any event, is believed to be inapplicable to the amended claims for at least the following reasons.

Claim 1 has been amended to clarify that the operative connection between the pressure pump, reactor, and reservoir tank, rather than the spatial orientation of such components, is a criticality; and to specify that the reactor and the reservoir tank are connected by a single pressure pump. In particular, amended claim 1 recites that the pressure pump is a single unit fluidly connected between the reactor and the reservoir tank which generates a pressure difference to cause a first process gas to flow from the reactor to the reservoir tank without an intervening pump. Claim 1 also requires a second gas supply source and a bypass pipe connecting the second gas supply source to the reactor such that a second process gas can be supplied to the reactor without passing through the reservoir tank.

In the Office Action, the Examiner maintained that vacuum pump 23 of Patel corresponds to the pressure pump of the present invention. However, pump 23 is not fluidly connected between the reactor (15) and the reservoir tank (12), as specifically required by claim 1. Rather, as schematically shown in Figure 2, pump 23 is an evacuation pump which is only fluidly connected to the reservoir tank. In fact, the line (36) fluidly connecting the reservoir tank and the reactor does not include a pump. Moreover, the portion of Patel relied on by the Examiner merely explains that the gas supply sources (19, 20) are connected to the reservoir (12), and that the reservoir is connected to the reactor (15) (Col. 3, lines 10-25; Col. 4, line 67-Col. 5, line 2). There is no indication that pump 23

generates a pressure difference between the reactor (15) and the reservoir tank (12) to cause the process gas to flow from the reactor to the reservoir tank, as specifically required by claim 1. Therefore, it is believed apparent that pump 23 of Patel does not correspond to the pressure pump of the present invention.

Further, the Examiner recognized that Patel does not disclose or suggest a turbo-molecular pump, turbo-molecular pump upstream valve, dry pump, and bypass pipe connecting a second gas supply source to the reactor, as required by claim 1. The Examiner, however, relied on Ohmi in an attempt to cure this deficiency of Patel. Although Ohmi discloses a turbo-molecular pump (11a), a dry pump (11b), and associated valves, the Examiner has not identified which components of Ohmi's system correspond to the second gas supply source and the bypass pipe of the present invention (See Office Action, p. 6). In this regard, Applicants note that Figure 1 of Ohmi illustrates a single gas supply source (gas tank 16) that does not appear to be connected to the reactor (presumably, 1) via a bypass pipe such that the process gas does not flow through the reservoir tank (presumably, 10). Therefore, Applicants submit that Ohmi does not disclose or suggest the second gas supply source and bypass pipe of claim 1, and request that any contrary interpretation of Ohmi be supported by specific citations and explanation.

Finally, it is submitted that Patel and Ohmi each fail to disclose or suggest the provision of a single pressure pump operative to generate a pressure difference between the reactor and the reservoir tank to cause a first process gas to flow from the reactor to the reservoir tank without an intervening pump (See Patel, Fig. 2; Ohmi, Fig. 1), as specifically required by claim 1.

In view of the above, it is believed apparent that the proposed combination of Patel and Ohmi does not disclose or suggest each of the aforementioned features of claim 1. Furthermore, it is submitted that the differences are such that a person of ordinary skill in the art would not have found claim 1 obvious in view of Patel, Ohmi, and the other references of record. Therefore, claim 1 is believed to be patentable over the references of record. Claim 8 is considered patentable at least by virtue of its dependency on claim 1.

Accordingly, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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